

Applicant : Lim et al.  
Serial No. : 10/707,142  
Filed : November 24, 2003  
Page : 2 of 10

Attorney's Docket No.: 12406-091001 / P2002,1004 US  
E1

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An OLED device comprising:

a substrate having an active region defined thereon, the active region comprising pixels, the substrate having a plurality of electrodes defined thereon along a first direction and that are confined to an electrode region, wherein the electrodes have a first length along a first direction parallel to a surface of the substrate and a first width along a second direction parallel to the surface of the substrate and perpendicular to the first direction, the first length being greater than the first width; and

a plurality of pillars parallel to one another forming grooves between the pillars, wherein at least one of the grooves has an electrode from the plurality of electrodes located in the groove, the pillars have a second length and a second width, the second length being greater than the second width and extending along the first direction so that the plurality of pillars are parallel to the plurality of electrodes, the pillars having a profile where a pillar has a lower portion and an upper portion that is wider in the second direction than the lower portion, the plurality of pillars extending along the first direction past ends of the plurality of ~~along the first direction on the substrate, wherein the pillars comprise a tapered profile, the electrodes located in grooves between the pillars, and wherein the pillars extend past ends of the electrodes and outside the electrode region of the substrate to prevent electrical shorting.~~

2. (Original) The OLED device of claim 1 wherein:

the pixels comprise an organic functional layer formed by depositing a solution having organic functional material dissolved in a solvent; and  
the pillars are inert to the solvent.

Applicant : Lim et al.  
Serial No. : 10/707,142  
Filed : November 24, 2003  
Page : 3 of 10

Attorney's Docket No.: 12406-091001 / P2002,1004 US  
E1

3. (Previously Presented) The OLED device of claim 2 wherein the pillars comprise a photosensitive material and the pillars are cured to render the pillars inert to the solvent.

4. (Previously Presented) The OLED device of claim 3 wherein the pillars extend outside the electrode region to the edges of the substrate.

5. (Previously Presented) The OLED device of claim 1 wherein the pillars comprise a photosensitive material and the pillars are cured to render the pillars inert to the solvent.

6. (Previously Presented) The OLED device of claim 5 wherein the pillars extend outside the electrode region to the edges of the substrate.

7. (Previously Presented) The OLED device of claim 1 wherein the pillars extend outside the electrode region to the edges of the substrate.

8. (Currently Amended) A flexible OLED device comprising:  
a flexible substrate having an active region defined thereon, the active region comprising OLED pixels, the flexible substrate having a plurality of electrodes defined thereon ~~along a first direction and that are~~ confined to an electrode region, wherein the electrodes have a first length along a first direction parallel to a surface of the substrate and a first width along a second direction parallel to the surface of the substrate and perpendicular to the first direction, the first length being greater than the first width; and

a plurality of pillars parallel to one another forming grooves between the pillars, wherein at least one of the grooves has an electrode from the plurality of electrodes located in the groove, the pillars have a second length and a second width, the second length being greater than the second width and extending along the first direction so that the plurality of pillars are parallel to the plurality of electrodes, the pillars having a profile where a pillar has a lower portion and an

Applicant : Lim et al.  
Serial No. : 10/707,142  
Filed : November 24, 2003  
Page : 4 of 10

Attorney's Docket No.: 12406-091001 / P2002,1004 US  
E1

~~upper portion that is wider in the second direction than the lower portion, the plurality of pillars extending along the first direction past ends of the plurality of along the first direction on the substrate, wherein the pillars comprise a tapered profile, the electrodes located in grooves between the pillars, and wherein the pillars extend past ends of the electrodes and outside the electrode region of the substrate to prevent electrical shorting.~~

9. (Original) The flexible OLED device of claim 8 wherein the flexible substrate comprises plastic or thin glass.

10. (Original) The OLED device of claim 9 wherein:  
the pixels comprise an organic functional layer formed by depositing a solution having organic functional material dissolved in a solvent; and  
the pillars are inert to the solvent.

11. (Previously Presented) The OLED device of claim 10 wherein the pillars comprise a photosensitive material and the pillars are cured to render the pillars inert to the solvent.

12. (Previously Presented) The OLED device of claim 11 wherein the pillars extend outside the electrode region to the edges of the substrate.

13. (Previously Presented) The OLED device of claim 10 wherein the pillars comprise a photosensitive material and the pillars are cured to render the pillars inert to the solvent.

14. (Previously Presented) The OLED device of claim 11 wherein the pillars extend outside the electrode region to the edges of the substrate.

Applicant : Lim et al.  
Serial No. : 10/707,142  
Filed : November 24, 2003  
Page : 5 of 10

Attorney's Docket No.: 12406-091001 / P2002,1004 US  
E1

15. (Previously Presented) The OLED device of claim 10 wherein the pillars extend outside the electrode region to the edges of the substrate.

16. (Currently Amended) An OLED device comprising:

a substrate having an active region defined thereon, the active region comprising OLED pixels, the substrate having a plurality of electrodes defined thereon along a first direction and that are confined to an electrode region, wherein the electrodes have a first length along a first direction parallel to a surface of the substrate and a first width along a second direction parallel to the surface of the substrate and perpendicular to the first direction, the first length being greater than the first width and an organic functional layer of the OLED pixels is formed by depositing a solution having organic functional material dissolved in a solvent; and

a plurality of pillars parallel to one another forming grooves between the pillars, wherein at least one of the grooves has an electrode from the plurality of electrodes located in the groove, the pillars have a second length and a second width, the second length being greater than the second width and extending along the first direction so that the plurality of pillars are parallel to the plurality of electrodes, the pillars having a profile where a pillar has a lower portion and an upper portion that is wider in the second direction than the lower portion, the plurality of pillars extending along the first direction past ends of the plurality of along the first direction on a the substrate, wherein the pillars are inert to the solvent and comprise a tapered profile, the electrodes located in grooves between the pillars, and wherein the pillars extend past ends of the electrodes and outside the electrode region of the substrate to prevent electrical shorting.

17. (New) The OLED device of claim 16, wherein each electrode has a first end and a second end and the plurality of pillars extending past ends of the plurality of electrodes includes the plurality of pillars extending past the first ends of the plurality of electrodes.

Applicant : Lim et al.  
Serial No. : 10/707,142  
Filed : November 24, 2003  
Page : 6 of 10

Attorney's Docket No.: 12406-091001 / P2002,1004 US  
E1

18. (New) The OLED device of claim 8, wherein each electrode has a first end and a second end and the plurality of pillars extending past ends of the plurality of electrodes includes the plurality of pillars extending past the first ends of the plurality of electrodes.

19. (New) The OLED device of claim 1, wherein each electrode has a first end and a second end and the plurality of pillars extending past ends of the plurality of electrodes includes the plurality of pillars extending past the first ends of the plurality of electrodes.